

## ABSTRACT OF THE DISCLOSURE

Each of outermost segments (OMSG) and innermost segments (IMSG) is utilized as a dummy segment. A top surface of a protruding portion (OMPP, IMPP) of each of the outermost segments (OMSG) and the innermost segments (IMSG) is covered  
5 with an insulating layer (1S + 1P), and a clearance (CL) is provided between a top surface of the insulating layer (1S + 1P) and a bottom surface (2BS) of a cathode strain relief plate. Each of all the other segments (SG) than the outermost and innermost segments has a protruding portion PP on which a cathode electrode (1K-AL) is formed. A thickness (T1) of the cathode electrode (1K-AL) is determined so as to allow a top  
10 surface of the cathode electrode (1K-AL) to be in contact with the bottom surface (2BS) of the cathode strain relief plate.